

From: [Laura Ebbert](#)
To: [Carol Sachs](#)
Cc: [Carter Jessop](#); [Jason Gerdes](#); [Connell Dunning](#); [Erskine Benjamin](#)
Subject: Re: Fw: Red Folder AX-12-002-0265-WH
Date: 12/14/2012 02:33 PM

This was in 2010. The first mine of a six-mine complex to reopen was called Arizona 1. Please see a summary, mine status as of 2010, and a news article and note from Jeanne below.

I have emails in my archive from Brian Davidson at ADEQ documenting what the State felt was adequate consultation with the affected Tribes when they decided to reopen these mines without conducting new NEPA analysis.

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Background from Jeanne in September, 2009:

Laura, I spoke with Roddy Cox, the AZ Strip geologist in the St. George, Utah, BLM office about uranium mines in the AZ Strip, and here's what he told me:

In the 1980's and 90's there were 6 uranium mines operated by Energy Fuels Nuclear. They closed and reclaimed 3 of them and put 3 of them in temporary closure status (not reclaimed because they might want to open again when prices go back up). Denison owns these mines now. They were all about 15 to 20 acres and were underground conventional mines (not in-situ leaching), and all ore bodies were at least 1,000 feet above the regional aquifer. Of the 3 that have been in temp closure, their top priority to reopen is called Arizona 1 Mine. It was permitted by BLM many years ago and an EA was written at the time. BLM does not plan on re-writing a NEPA document for this project, as there is no change to their Plan of Operation (POO). but Denison is applying to the State for permits. It sounds as if the State is scheduled to issue an air permit today, and he thought there would be a 30-day appeal period. This is important for folks to know about right away. The ore would be transported to Denison's mill in Blanding, Utah, for processing, which is the same as before.

Pine Nut Mine is Denison's second priority for reopening. Kanab North Mine is their third priority on the AZ Strip. They are currently assessing it to see if it's even economical at this time. BLM hasn't received an proposals from Denison on Kanab North.

There is also a proposal by Denison for a brand new mine, called EZ1 Mine, which is within the segregated/withdrawn area. My guess is that, if they pursue this, BLM might have to conduct a validity exam to see if Denison has validity existing rights,

but Roddy couldn't verify if that would be done. BLM has decided this project would be the subject of an EIS. Denison has submitted a draft POO to BLM, and BLM is working with them to get a complete POO.

The Canyon Mine is in Kaibab National Forest on the Tusayan Ranger District. He didn't give me any other info on this one since it's a USFS project.

Roddy is sending me a CD with the pdf files of the old EAs on the Arizona 1 and Pine Nut mines, so we can see what they look like. I asked if conditions have changed since those old EAs were written, and he said condors have been re-introduced into the AZ Strip, and AZ has some new permitting requirements.

If I find out more, I'll keep you apprised.

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Status of Denison Mines in Arizona as of 3/4/10

Mine	Status	Location	Distance from Receptor (km)	Comments
Arizona 1	Ventilating	35 miles southeast of Fredonia	31	We're expecting an annual report 3/31. Denison had said that they would be providing annual reports to EPA per the regs.
Canyon	Ventilating	6.5 miles southeast of Tusayan	8	
EZ 1 & EZ2	As of July: Proposing to open – may be ventilating	18 miles south of Fredonia	29	
Pinenut	As of July: Proposing to open - may be ventilating	35 miles southeast of Fredonia	30	
What	No information about it but it's listed as a mine on	Appears to be next to	29	

	their map.	EZ mines	
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To: Laura Mayo/R9/USEPA/US@EPA, Shelly Rosenblum/R9/USEPA/US@EPA, John Hillenbrand/R9/USEPA/US@EPA
From: Jeanne Geselbracht/R9/USEPA/US
Date: 01/13/2010 01:19PM
cc: Elaine Suriano/DC/USEPA/US@EPA
Subject: Arizona 1 uranium mine opened in December

BLM relied on a 25-year-old EA to allow this mine to open.

Uranium mining in region resumes

By CYNDY COLE - [Flagstaff] Arizona Daily Sun

Driven by a rebound in prices, uranium mining has resumed in northern Arizona after a hiatus of about 20 years.

Employees working for Denison Mines began removing high-grade ore at the Arizona 1 mine north of the Grand Canyon in late December, according to the company's president, and trucking it to a mill near Blanding, Utah.

The mine is about 45 miles southwest of Fredonia in Mohave County, and about 10 miles from the boundary for Grand Canyon National Park.

The ore is refined into yellowcake, after which it can be refined further and sold to utilities worldwide for nuclear power generation.

Today's workers are re-entering a mothballed mine built before uranium prices last crashed in the late 1980s.

The deposit is a 1,500-foot-deep, straw-shaped formation of sedimentary rock called a breccia pipe. It contains uranium ore below the ground, along with various rock layers.

These breccia pipes are sometimes identifiable to the eye along the canyon walls of the Little Colorado River, and in the Grand Canyon.

SIX MINES POSSIBLE

Prices for uranium refined into yellowcake have varied from \$10 per pound to \$138 per pound in recent years.

Denison is projecting prices in the range of \$53 to \$65 per pound.

It's expected that six uranium mines could open on federal lands bordering the Grand Canyon, according to estimates by the Bureau of Land Management, and more than 7,500 claims have been filed in northern Arizona.

The mine's opening comes despite a November lawsuit by environmental groups contending that legally required documents for this mine are outdated and expired, and that opening it without them would violate the Endangered

Species Act, among other laws.

"They're challenging the permits, but the BLM and state have given us all the permits we need to operate," said Ron Hochstein, Denison president and chief executive officer.

The company said this was the first of several Arizona mines it plans to open.

There has been no ruling on the lawsuit that attempted to block the opening of the mine, said Grand Canyon Trust attorney Neil Levine.

"Any mining in the area has the potential to affect groundwaters and surface waters. That causes both Las Vegas and Los Angeles' water districts to object to the mining," Levine said.

The Sierra Club and the Center for Biological Diversity also sued to stop the mine from opening.

The environmental groups hope to stop a lot of uranium mining by getting federal action to put about 1 million acres of federal land on both sides of the Grand Canyon off-limits to new mining claims.

Interior Secretary Ken Salazar has ordered a review of the environmental, economic and other impacts associated with uranium mining in order to make a decision on that request, and he has put new mining claims on hold for two years in the meantime.

"It's unfortunate that the BLM has decided to ignore the spirit of Salazar's attempt to protect the Grand Canyon from uranium mining," said Stacey Hamburg, of the Sierra Club.

PROPERLY AUTHORIZED

The Bureau of Land Management and Arizona Department of Environmental Quality said Arizona 1's opening was properly authorized.

"It was a long and emotional process but we're proud of the science-based product," ADEQ Director Ben Grumbles said, in a statement. "The final permits protect the environment, provide for good jobs, and hold Denison accountable. Future permits for underground uranium mining need to have similar, stringent provisions for monitoring, pollution prevention, and legal accountability."

ADEQ previously denied Denison's bid to open two other uranium mines at which the company had proposed using 20-year-old liners and impoundment ponds to capture mine-related runoff.

The mining issue has proven contentious.

The Coconino County Board of Supervisors issued a resolution against it in 2008; the Mohave County Board of Supervisors have voted in support.

The director of Arizona's Department of Mines and Mineral Resources told a

U.S. House subcommittee last summer that she did not want a prohibition on mining in the Grand Canyon region, saying it was needed for power generation worldwide. She added that any environmental harm as a result of mining was unlikely, and that mining jobs paying \$60,000 to \$80,000 apiece were needed.

YELLOWCAKE IMPORTER

On balance, the United States is an importer of yellowcake, mostly from Canada, Australia and Russia.

The mining department director, Madan M. Singh, said there was enough uranium in the area proposed to be put off-limits to replace all the U.S. power generated by coal plants for a decade, or the energy equivalent of all the oil in the largest oil field in the country.

U.S. Geological Survey estimates of the uranium available in the area are not as large, but the estimates are wide-ranging.

The uranium-bearing breccia pipes of northern Arizona are the most concentrated source of uranium known in the United States, according to multiple sources.

In brief

What: Uranium ore mining in northern Arizona resumes in late December for the first time in about 20 years.

Where: At the Arizona 1 Mine on the Arizona Strip in Mohave County, about 45 miles southwest of Fredonia and 10 miles from the boundary of Grand Canyon National Park. Ore is being sent to a uranium mill in Blanding, Utah, about 315 miles away. The refined yellowcake produced from this mine can be sold to utilities internationally, and some will likely end up with the Korea Electric Power Corp. in South Korea, which owns about 20 percent of Denison Mines as of April, 2009.

How much: An estimated eight truckloads (20 tons each) of ore would be headed out of the mine daily when it reaches full production.

The company proposes to mine a known 67,000 to 72,121 tons of ore (or more if other deposits are discovered deeper), which would be enough to produce about 850,000 pounds of yellowcake after refinement.

Profits from the mine are estimated at \$22.2 million total by owner Denison Mines, but could vary depending on the going price for yellowcake.

Why: This is driven by a rebound in uranium prices in recent years.

What else: Opponents contend the mine's owners haven't done all they must to prove this mine can operate in light of a two-year prohibition on new uranium mining on most federal lands surrounding the Grand Canyon. The

Bureau of Land Management says Denison has all the permits it needs.

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▼ Carol Sachs---12/14/2012 02:20:06 PM---Carter I talked with Connell and Laura. Laura says she has some files from 26 years ago when she and

From: Carol Sachs/R9/USEPA/US
To: Carter Jessop/R9/USEPA/US@EPA,
Cc: Jason Gerdes/R9/USEPA/US@EPA, Laura Ebbert/R9/USEPA/US@EPA,
Connell Dunning/R9/USEPA/US@EPA, Erskine Benjamin/R9/USEPA/US@EPA
Date: 12/14/2012 02:20 PM
Subject: Re: Fw: Red Folder AX-12-002-0265-WH

Carter

I talked with Connell and Laura. Laura says she has some files from 26 years ago when she and Jeanne worked on it. I couldn't find it in our database, but it seems the EIS was four mines altogether and before the database existed. Erskine Benjamin is the Havuspai contact in Tribal. Jason worked on a large moratorium of uranium mines in the area near Grand Canyon (005450), but in poking around the web, I found that this, as a mine that is already in existence, seems to be grandfathered in.

Jeanne will not be back in the office before this letter is due.

I hope this helps.

I guess that ultimately it's Connell's decision who this goes to. She wasn't here when I got the email, and I wanted to get a jump on it because time seemed so short.

Thank you

Carol

▼ Carter Jessop---12/14/2012 01:26:39 PM---Looks like the kind of thing that might fall into my purview. I'll follow up with tribal, superfund

From: Carter Jessop/R9/USEPA/US
To: Carol Sachs/R9/USEPA/US@EPA,
Cc: Jason Gerdes/R9/USEPA/US@EPA
Date: 12/14/2012 01:26 PM
Subject: Re: Fw: Red Folder AX-12-002-0265-WH

Looks like the kind of thing that might fall into my purview. I'll follow up with tribal, superfund and others. Jason, is Carol correct that you've had involvement with this

project in the past? Searching for uranium in our database I get some hits, but most they appear to be Jeanne's projects (but she's out until after the new year now, unfortunately).

-Carter

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▼ Carol Sachs---12/14/2012 09:51:20 AM---Carter, Jason We don't really have a lot of time on this, so I'm forwarding it to you now. I don't k

From: Carol Sachs/R9/USEPA/US
To: Carter Jessop/R9/USEPA/US@EPA, Jason Gerdes/R9/USEPA/US@EPA,
Date: 12/14/2012 09:51 AM
Subject: Fw: Red Folder AX-12-002-0265-WH

Carter, Jason
We don't really have a lot of time on this, so I'm forwarding it to you now. I don't know who's going to do the final assignment, ERO or Tribal either. Carter, I'm pulling in your mining expertise; Jason, didn't you review the near Grand Canyon uranium mining project?
Thank you
Carol

----- Forwarded by Carol Sachs/R9/USEPA/US on 12/14/2012 09:48 AM -----

From: Frances Kwok/R9/USEPA/US
To: Carol Sachs/R9/USEPA/US@EPA, Kimberli Smith/R9/USEPA/US@EPA,
Date: 12/14/2012 08:55 AM
Subject: Red Folder AX-12-002-0265-WH

Hello Carol/Kimberli,

ORA received the attached AX-12-002-0265-WH. The due date is December 27, 2012.

Please pick up the red folder in the mail slot on the 18th floor.

Thanks,

Frances Kwok
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[attachment "AX-12-002-0265-WH Stewart.pdf" deleted by Carter
Jessop/R9/USEPA/US]